

**Serial No. 10/619,343
Atty. Doc. No. 03P07539US**

REMARKS

Applicants have amended claim 1 and added claims 21 and 22. Thus, claims 1-22 are pending in the application and presented for examination. Applicants respectfully request allowance of the present application in view of the foregoing amendments and the following 5 remarks. The Applicant also wishes to thank the Examiner for the allowance of claims 14-18 and for the finding of allowable subject matter in claims 3, 7-10, 19 and 20.

Response To Rejections Under Section 112:

Claims 19 and 20 stand rejected under 35 U.S.C. § 112, second paragraph, the 10 Examiner stating that the language therein is indefinite, as filed. In response, Applicants have amended these claims to more clearly define the present invention.

Response To Rejections Under Section 102:

Claims 1, 2, 4, 11 and 13 stand rejected under 35 U.S.C. § 102(b), the Examiner 15 contending that these claims are anticipated by U.S. Patent No. 6,142,730 to Tomita et al. ("Tomita"). The Examiner apparently reads Tomita as disclosing the claimed invention,

Tomita is a cooled stationary blade for a gas turbine. The blade assembly includes inner and outer shrouds, with a blade disposed between the shrouds. The blade assembly also includes air cooling means for cooling the blade and steam cooling means for cooling the 20 shrouds and an interior of the blade. The shrouds include steam chamber plenums each divided into upper and lower portions by an impingement plate through which impingement steam may pass.

It is noted that cooling air is directed from outside the blade to the lower peripheral portion of the outer shroud (see Tomita, Col. 5, Lines 8-10) through feed port "6", along open-25 loop cooling passageways "6a", "6b" and out through passage "9" at the rear of the blade. (See

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Tomita Col. 6, Lines 53-55). It is also noted that cooling steam is directed into the upper and lower portions of the Tomita steam chamber plenums and that these portions are fluidly connected. However, although the Tomita steam plenums are fluidly connected, no cooling passageways in the shroud exterior connect these plenum upper and lower portions. Instead, 5 the plenum upper and lower portions are connected by holes in the impingement plates, in the Interior of the blade. (See Tomita Figs. 1 and 4).

In contrast, the inner and outer plenums of the Applicant's invention are in fluid communication through cooling passages (denoted by reference numerals "100", "102", "104", and "104") disposed with the exterior of the respective shroud. With this arrangement, the 10 present invention includes a closed-loop cooling arrangement for the shroud exterior not provided by Tomita. Tomita does not teach or suggest inner and outer plenums "wherein each inner plenum is in fluid communication with a respective outer plenum through at least one of the cooling passages in the respective shroud and wherein at least one of the shroud cooling passages is disposed with an exterior of said respective shroud" as claimed in amended claim

15 1.

In view of the above, Independent claim 1 is patentable. Dependent claims 2, 4, 11, and 13 are also patentable at least based on their dependency from their respective base claims, as well as based on their own merit. Therefore, Applicants respectfully request that the Examiner withdraw the Section 102 rejection.

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Response To Rejections Under Section 103:

Claims 5 and 6 stand rejected under 35 U.S.C. § 103(a), the Examiner contending that this claim is obvious over Tomita. As noted above, Tomita does not teach or suggest inner and outer plenums "wherein each inner plenum is in fluid communication with a respective outer plenum through at least one of the cooling passages in the respective shroud and wherein at 25

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least one of the shroud cooling passages is disposed with an exterior of said respective shroud" as claimed in amended claim 1, from which claims 5 and 6 depend. In view of the above, it is respectfully submitted that claims 5 and 6 are patentable at least based on their dependency from claim 1, as well as by virtue of each defining a separately patentable combination.

5 Reconsideration and withdrawal of the Section 103 rejection is respectfully requested.

Request For Allowance Of Claims 19 and 20:

The Examiner noted that claims 19 and 20 would be allowable if rewritten to overcome the Section 112 rejections. Claims 19 and 20 have been rewritten accordingly, and the

10 Applicant respectfully requests allowance of these claims.

Discussion Of New Claims 21 and 22:

The Examiner indicated that claims 3 and 7-10 contained patentable subject matter and would be allowed if rewritten in independent form including all the limitations of the base claims and any intervening claims. Claims 3 and 7 has been rewritten as independent claims 21 and 22 and include the limitations of their base and intervening claims. Applicants respectfully submits that claims 21 and 22 are in condition for allowance and respectfully request allowance thereof.

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CONCLUSION

For the foregoing reasons, it is respectfully submitted that the objections and rejections set forth in the outstanding Office Action are inapplicable to the present claims and specification. Accordingly, the Applicant respectfully requests that the Examiner reconsider the objections and rejections and timely pass the application to allowance.

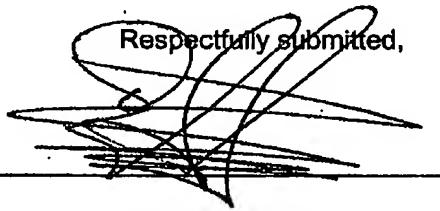
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The undersigned has made a good faith effort to respond to all of the objections and rejections in the application and to place the claims in condition for allowance. Should the Examiner have any questions concerning this paper or application, or if any undeveloped issues or questions remain, the Examiner is respectfully requested to contact Applicant's undersigned 5 attorney to resolve such issue or question. All correspondence should continue to be directed to our below-listed address.

Please grant any extensions of time required to enter this paper. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper or credit any overpayments to Deposit Account No. 19-2179.

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